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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/744,300	01/23/2001	Henning Andersen	Q62611	3916

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EXAMINER	
CHAU, COREY P	
ART UNIT	PAPER NUMBER
2615	

DATE MAILED: 11/02/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/744,300	ANDERSEN ET AL.	
	Examiner	Art Unit	
	Corey P. Chau	2615	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *17-19 and 21-33* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *17-19 and 21-27* is/are allowed.

6)☒ Claim(s) *28-29, and 31-33* is/are rejected.

7)☒ Claim(s) *30* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *6/5/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 28 and 31-32 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6173063 to Melanson.

3. Regarding Claim 28, Melanson discloses a hearing aid adapted for in-situ fitting with the hearing aid acting as an audio signal source, said hearing aid comprising

a digital amplifier (Fig. 1; column 1 ; line 55 to column 2, line 4),

attenuation means (Fig. 1; column 2, lines 5-16) and

an output transducer (Fig. 1; column 1 ; line 55 to column 2, line 4),

said hearing aid being adapted for selective operation in a first mode and a second mode (Fig. 1; column 2, lines 5-16),

said hearing aid being adapted to operate in said first mode to generate by said digital amplifier an amplifier output signal within a first dynamic range extending between an amplifier noise level and a maximum output level (Fig. 1; column 2, lines 5-16), and

said hearing aid being adapted to operate in said second mode to feed to said digital amplifier a test signal (i.e. signals received by the hearing aid), and to generate by said digital amplifier and said attenuation means an amplifier output signal within a second dynamic range, which second dynamic range is shifted to lower levels relative to said first dynamic range (Fig. 1; column 2, lines 5-16)

4. Regarding Claim 31, Melanson discloses said digital amplifier is a switch mode amplifier, and wherein said attenuation means comprises means for attenuating a supply voltage for said digital amplifier (Fig. 1; column 2, lines 5-16).

5. Regarding Claim 32, Melanson discloses said attenuation means comprises means for attenuating an output signal from said digital amplifier (Fig. 1; column 2, lines 5-16).

6. Claims 28-29 and 31-32 are rejected under 35 U.S.C. 102(e) as being anticipated by USPN 6048305 to Bauman et al. (hereafter as Bauman).

7. Regarding Claim 28, Bauman discloses a hearing aid adapted for in-situ fitting with the hearing aid acting as an audio signal source, said hearing aid comprising

a digital amplifier (Figs. 8-10 ; column 8, lines 17-54),

attenuation means (Figs. 1 and 8-10 ; column 8, lines 17-54; column 10, lines 5-20) and

an output transducer (Figs. 1 and 8-10),

said hearing aid being adapted for selective operation in a first mode and a second mode (Figs. 1 and 8-10 ; column 8, lines 17-54; column 10, lines 5-20),

said hearing aid being adapted to operate in said first mode to generate by said digital amplifier an amplifier output signal within a first dynamic range extending between an amplifier noise level and a maximum output level (Figs. 1 and 8-10 ; column 8, lines 17-54; column 10, lines 5-20), and

said hearing aid being adapted to operate in said second mode to feed to said digital amplifier a test signal (abstract; Figs. 1 and 8-10 ; column 8, lines 17-54; column 10, lines 5-20), and to generate by said digital amplifier and said attenuation means an amplifier output signal within a second dynamic range, which second dynamic range is shifted to lower levels relative to said first dynamic range (Figs. 1 and 8-10 ; column 8, lines 17-54; column 10, lines 5-20).

8. Regarding Claim 29, Bauman discloses attenuation means comprises a voltage dividing resistor network (Figs. 1 and 8-10; column 8, lines 17-54; column 10, lines 5-20).

9. Regarding Claim 31, Bauman discloses said digital amplifier is a switch mode amplifier, and wherein said attenuation means comprises means for attenuating a supply voltage for said digital amplifier (Figs. 1 and 8-10 ; column 8, lines 17-54).

10. Regarding Claim 32, Bauman discloses said attenuation means comprises means for attenuating an output signal from said digital amplifier (Figs. 1 and 8-10 ; column 8, lines 17-54).

11. Claims 28-29 and 32 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5710820 to Martin et al. (hereafter as Martin)

12. Regarding Claim 28, Martin discloses a hearing aid adapted for in-situ fitting with the hearing aid acting as an audio signal source, said hearing aid comprising

a digital amplifier (Fig. 2 ; column 2, lines 29-42),

attenuation means (abstract; Figs. 1-2; column 29-42) and

an output transducer (Figs. 1-2),

said hearing aid being adapted for selective operation in a first mode and a second mode (abstract; Figs. 1-2; column 1, lines 38-43; column 2, lines 14-27; column 3, lines 9-40; column 4, lines 39-67),

said hearing aid being adapted to operate in said first mode to generate by said digital amplifier an amplifier output signal within a first dynamic range extending between an amplifier noise level and a maximum output level (abstract; Figs. 1-2; column 1, lines 38-43; column 2, lines 14-27; column 3, lines 9-40; column 4, lines 39-67), and

said hearing aid being adapted to operate in said second mode to feed to said digital amplifier a test signal, and to generate by said digital amplifier and said attenuation means an amplifier output signal within a second dynamic range, which

second dynamic range is shifted to lower levels relative to said first dynamic range (abstract; Figs. 1-2; column 1, lines 38-43; column 2, lines 14-27; column 3, lines 9-40; column 4, lines 39-67).

13. Regarding Claim 29, Martin discloses attenuation means comprises a voltage dividing resistor network (abstract; Figs. 1-2; column 1, lines 38-43; column 2, lines 14-27; column 3, lines 9-40; column 4, lines 39-67)

14. Regarding Claim 32, Martin discloses said attenuation means comprises means for attenuating an output signal from said digital amplifier (abstract; Figs. 1-2; column 1, lines 38-43; column 2, lines 14-27; column 3, lines 9-40; column 4, lines 39-67).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

16. Claims 28 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5710819 to Topholm et al. (hereafter as Topholm).

17. Regarding Claim 28, Topholm discloses a hearing aid adapted for in-situ fitting with the hearing aid acting as an audio signal source (Figs. 1-2).

Topholm does not expressly disclose a digital amplifier. However, the examiner takes Official Notice that it is well known in the art to utilize a digital amplifier such as a

class D amplifier in order to save energy. Therefore it would have been obvious to one having ordinary skill in the art to modify Topholm to utilize a digital amplifier such as a class D amplifier in order to save energy.

Topholm as modified discloses said hearing aid comprising

attenuation means (abstract; Figs. 1-2; column 2, line 61 to column 3, line 5) and

an output transducer (Figs. 1-2),

said hearing aid being adapted for selective operation in a first mode and a second mode (abstract; Figs. 1-2; column 2, line 61 to column 3, line 5; column 3, lines 30-40),

said hearing aid being adapted to operate in said first mode to generate by said digital amplifier an amplifier output signal within a first dynamic range extending between an amplifier noise level and a maximum output level (abstract; Figs. 1-2; column 2, line 61 to column 3, line 5; column 3, lines 30-54), and

said hearing aid being adapted to operate in said second mode to feed to said digital amplifier a test signal, and to generate by said digital amplifier and said attenuation means an amplifier output signal within a second dynamic range, which second dynamic range is shifted to lower levels relative to said first dynamic range (abstract; Figs. 1-2; column 2, line 61 to column 3, line 5; column 3, lines 30-54).

18. Regarding Claim 32, Topholm as modified discloses said attenuation means comprises means for attenuating an output signal from said digital amplifier (abstract; Figs. 1-2; column 2, line 61 to column 3, line 5; column 3, lines 30-54).

19. Regarding Claim 33, Topholm as modified discloses a microphone and a selector switch, which selector switch is adapted to selectively connect said microphone to, or disconnect said microphone from, said digital amplifier (abstract; Figs. 1-2; column 2, line 61 to column 3, line 5; column 3, lines 30-54).

20. Claims 28-29 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN to Matzen et al. (hereafter as Matzen)

21. Regarding Claim 28, Matzen discloses a hearing aid adapted for in-situ fitting with the hearing aid acting as an audio signal source (Fig. 1).

Matzen does not expressly disclose a digital amplifier. However, the examiner takes Official Notice that it is well known in the art to utilize a digital amplifier such as a class D amplifier in order to save energy. Therefore it would have been obvious to one having ordinary skill in the art to modify Matzen to utilize a digital amplifier such as a class D amplifier in order to save energy.

Matzen as modified discloses said hearing aid comprising

attenuation means (Figs. 1-2; column 2, line 55 to column 3, line 25) and

an output transducer (Fig. 1),

said hearing aid being adapted for selective operation in a first mode and a second mode (Figs. 1-2; column 2, lines 23-32; column 2, line 55 to column 3, line 25; column 4, lines 54-64),

said hearing aid being adapted to operate in said first mode to generate by said digital amplifier an amplifier output signal within a first dynamic range extending

between an amplifier noise level and a maximum output level (Figs. 1-2; column 2, lines 23-32; column 2, line 55 to column 3, line 25; column 4, lines 54-64), and

said hearing aid being adapted to operate in said second mode to feed to said digital amplifier a test signal (i.e. signal received by the hearing aid), and to generate by said digital amplifier and said attenuation means an amplifier output signal within a second dynamic range, which second dynamic range is shifted to lower levels relative to said first dynamic range (Figs. 1-2; column 2, lines 23-32; column 2, line 55 to column 3, line 25; column 4, lines 54-64).

22. Regarding Claim 29, Matzen as modified discloses attenuation means comprises a voltage dividing resistor network (Figs. 1-2; column 2, lines 23-32; column 2, line 55 to column 3, line 25; column 4, lines 54-64).

23. Regarding Claim 32, Matzen as modified discloses said attenuation means comprises means for attenuating an output signal from said digital amplifier (Figs. 1-2; column 2, lines 23-32; column 2, line 55 to column 3, line 25; column 4, lines 54-64).

24. Claims 28 and 32-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6118877 to Lindemann et al. (hereafter as Lindemann)

25. Regarding Claim 28, Lindemann discloses a hearing aid adapted for in-situ fitting with the hearing aid acting as an audio signal source (Figs. 1-2).

Lindemann does not expressly disclose a digital amplifier. However, the examiner takes Official Notice that it is well known in the art to utilize a digital amplifier such as a class D amplifier in order to save energy. Therefore it would have been

obvious to one having ordinary skill in the art to modify Lindemann to utilize a digital amplifier such as a class D amplifier in order to save energy.

Lindemann as modified discloses said hearing aid comprising

attenuation means (Fig. 1; column 3, line 45 to column 4, line 32; column 4, line 58 to column 5, line 67) and

an output transducer (Fig. 1), and

said hearing aid being adapted for selective operation in a first mode and a second mode (Fig. 1; column 3, line 45 to column 4, line 32; column 4, line 58 to column 5, line 67),

said hearing aid being adapted to operate in said first mode to generate by said digital amplifier an amplifier output signal within a first dynamic range extending between an amplifier noise level and a maximum output level (Fig. 1; column 3, line 45 to column 4, line 32; column 4, line 58 to column 5, line 67), and

said hearing aid being adapted to operate in said second mode to feed to said digital amplifier a test signal, and to generate by said digital amplifier and said attenuation means an amplifier output signal within a second dynamic range, which second dynamic range is shifted to lower levels relative to said first dynamic range (Fig. 1; column 3, line 45 to column 4, line 32; column 4, line 58 to column 5, line 67).

26. Regarding Claim 32, Lindemann as modified discloses said attenuation means comprises means for attenuating an output signal from said digital amplifier (Fig. 1; column 3, line 45 to column 4, line 32; column 4, line 58 to column 5, line 67).

27. Regarding Claim 33, Lindemann as modified discloses a microphone and a selector switch, which selector switch is adapted to selectively connect said microphone to, or disconnect said microphone from, said digital amplifier (Fig. 1; column 3, line 45 to column 4, line 32; column 4, line 58 to column 5, line 67).

28. Claims 28 and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6330339 to Ishige et al. (hereafter as Ishige)

29. Regarding Claim 28, Ishige discloses a hearing aid adapted for in-situ fitting with the hearing aid acting as an audio signal source (Figs. 2-3 and 6-7).

Ishige does not expressly disclose a digital amplifier. However, the examiner takes Official Notice that it is well known in the art to utilize a digital amplifier such as a class D amplifier in order to save energy. Therefore it would have been obvious to one having ordinary skill in the art to modify Ishige to utilize a digital amplifier such as a class D amplifier in order to save energy.

attenuation means (Figs. 2-3 and 6-7; column 4, lines 8-65) and

an output transducer (Figs. 2-3 and 6-7),

said hearing aid being adapted for selective operation in a first mode and a second mode (Figs. 2-3 and 6-7; column 4, lines 8-65),

said hearing aid being adapted to operate in said first mode to generate by said digital amplifier an amplifier output signal within a first dynamic range extending between an amplifier noise level and a maximum output level (Figs. 2-3 and 6-7; column 4, lines 8-65), and

said hearing aid being adapted to operate in said second mode to feed to said digital amplifier a test signal (i.e. signals received by the hearing aid), and to generate by said digital amplifier and said attenuation means an amplifier output signal within a second dynamic range, which second dynamic range is shifted to lower levels relative to said first dynamic range (Figs. 2-3 and 6-7; column 4, lines 8-65).

30. Regarding Claim 32, Ishige as modified discloses said attenuation means comprises means for attenuating an output signal from said digital amplifier (Figs. 2-3 and 6-7; column 4, lines 8-65).

Allowable Subject Matter

31. Claims 17-19 and 21-27 allowed.

32. Claim 30 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

33. Applicant's arguments with respect to claims 17-19, and 21-33 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

34. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

35. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Corey P. Chau whose telephone number is (571)272-7514. The examiner can normally be reached on Monday - Friday 9:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chin Vivian can be reached on (571)272-7848. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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